

Colorado Department of Transportation
Structure Inspection and Inventory Report (English Units)

Highway Number (ON) 5D: 0025A 0

Mile Post (ON)11: 209.180 mi

Bridge Key: F-16-OL

Inspection Date: 3/24/2008

Sufficiency Rating: 95.3 Not Eligible

Rgn/Sectn 2E/2M: 68
 Trans Region 2T: 02
 County Code 3: 031
 DENVER
 Place Code 4: 20000
 DENVER
 Rte.(On/Under)5A: 1
 Signing Prefix 5B: 1
 Level of Service 5C: 7
 Directional Suffix 5E: 0
 Feature Intersected 6:
 RAMP TO I 25 SBND
 Facility Carried 7:
 6TH AVE WB
 Alias Str No.8A:
 Prll Str No. 8P
 Location 9:
 JCT I25 + SH6 IN DENVER
 Max Clr 10: 99.99
 BaseHiway Net12:
 IrsinvRout 13A: 000000025A
 IrsSubRout No13B: 00
 Latitude 16: 39d 43' 26"
 Longitude 17: 105d 00' 44"
 Range18A: 68 W
 Township18B: 68
 Section18C: 4
 Detour Length 19: 3.2 mi
 Toll Facility 20: 3
 Custodian 21: 1
 Owner 22: 1
 Functional Class 26: 01
 Year Built 27: 1989
 Lanes on 28A: 1
 Lanes Under 28B: 8
 ADT 29: 2,700
 Year of ADT 30: 2005
 Design Load 31: 6
 Apr Rdwy Width 32: 31.0 ft
 Median 33: 0
 Skew 34: 99.00 °
 Structure Flared 35: 1
 Sfty Rail 36a/b/c/d: 1 1 1 1
 Rail ht36h: 35 "in"

Hist Signif 37: 5
 Posting status 41: A
 Service on/un 42A/B: 1 1
 Main Mat/Desgn 43A/B: 4 6
 Appr Mat/Desgn 44A/B: 0 0
 Main Spans Unit 45: 10
 Approach Spans 46: 0
 Horiz Clr 47: 31.0 ft
 Max Span 48: 172.7 ft
 Str Length 49: 1,193.8 ft
 Curb Wdth L/R 50A/B: 0.0 ft 0.0 ft
 Width Curb to Curb 51: 31.0 ft
 Width Out to Out 52: 34.0 ft
 Deck Area: 40,590.7 sq. ft
 Min Clr Ovr Brdg 53: 99.99
 Min Undrclr Ref 54A: H
 Min Undrclr 54B: 19.0 ft
 Min Lat Clrnce Ref R 55A: H
 Min Lat Undrclr R 55B: 8.0 ft
 Min Lat Undrclr L 56: 4.002624765
 Deck 58: 7
 Super 59: 7
 Sub 60: 7
 Channel/Protection 61: N
 Culvert 62: N
 Optng Rtg Method 63: 1 LF Load Factr
 Operating Rating 64: 85.0
 Inv Rtnng Method 65: 1
 Inventory Rating 66: 43.0
 Asph/Fill Thick 66T: 002 "in"
 Str. Evaluation 67: 7
 Deck Geometry 68: 9
 Undrclr Vert/Hor 69: 4
 Posting 70: 5
 Waterway Adequacy 7: N
 Approach Alignment 72: 8
 Type of Work 75A:
 Work Done By 75B:
 Length of Improvment 76: 0.0 ft
 Insp Team Indicator 90B: Red Team (Coffi
 Inspector Name 90C: COFFRINW
 Frequency 91: 24 months
 FC Frequency 92A: 24
 UW Frequency 92B: 24
 SI Frequency 92C: 24
 FC Inspection Date 93A: 2/14/2006

UW Inspection Date 93B:
 SI Date 93C:
 Bridge Cost 94: \$ 0
 Roadway Cost 95: \$ 0
 Total Cost 96: \$ 0
 Year of Cost Estimate 97:
 Brdr Brdg Code/% 98A/B:
 Border Bridge Number 99:
 Defense Highway 100: 1
 Parallel Structure 101: N
 Direction of Traffic 102: 1
 Temporary Structure 103:
 Highway System 104: 1
 Fed Lands Hiway 105: 0
 Year Reconstructed 106: 0000
 Deck Type 107: 1
 Wearing Surface 108A: 6
 Membrane 108B: 2
 Deck Protection 108C: 0
 Truck ADT 109: 5 %
 Trk Net 110: 1
 Pier Protection 111:
 NBIS Length 112: Y
 Scour Critical 113: N
 Scour Watch 113M:
 Future ADT 114: 3,000
 Year of Future ADT 115: 2025
 CDOT Str Type 120A: SBGC
 CDOT Constr Type 120B: 0.
 Inspection Indic 122A:
 Inspection Trip 122AA:
 Scheduling Status 122B:
 Maintenance Patrol 123: 7
 Expansion Dev/Type124:
 Brdg Rail Type/Mod 125A/B:
 Posting Trucks 129A/B/C: 0 0 0
 Str Rating Date 130: 11/13/1996
 Special Equip 133: -1
 Vert Clr N/E 134A/B/C: N 19.75 19.00
 Vert Clr S/W 135A/B/C: S 18.67 18.00
 Vertical Clr Date: 10/25/2005
 Weight Limit Color: 139: 0
 Str Billing Type: U
 Userkey 1 - System: ONSYS
 Userkey 7-Update Indic:

Inspector Name: COFFRINW

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Element Inspection Report

Elm/En	Description	Units	Total Qty	% in 1	CS 1	% in 2	CS 2	% in 3	CS 3	% in 4	CS 4	% in 5	CS 5
26/4	Conc Deck/Coatd Bars	(SF)	40,589	100 %	40,589	0 %	0	0 %	0	0 %	0	0 %	0
102/4	Paint Stl Box Girder	(LF)	2,388	100 %	2,388	0 %	0	0 %	0	0 %	0	0 %	0
205/4	R/Conc Column	(EA)	8	100 %	8	0 %	0	0 %	0	0 %	0	0 %	0
210/4	R/Conc Pier Wall	(LF)	54	100 %	54	0 %	0	0 %	0	0 %	0	0 %	0
215/4	R/Conc Abutment	(LF)	36	100 %	36	0 %	0	0 %	0	0 %	0	0 %	0
233/4	P/S Conc Cap	(LF)	188	100 %	188	0 %	0	0 %	0	0 %	0	0 %	0
234/4	R/Conc Cap	(LF)	58	100 %	58	0 %	0	0 %	0	0 %	0	0 %	0
307/4	Modular Expansion Jt	(LF)	107	100 %	107	0 %	0	0 %	0	0 %	0	0 %	0
314/4	Pot Bearing	(EA)	24	100 %	24	0 %	0	0 %	0	0 %	0	0 %	0
321/4	R/Conc Approach Slab	(EA)	1	100 %	1	0 %	0	0 %	0	0 %	0	0 %	0
326/4	Bridge Wingwalls	(EA)	2	100 %	2	0 %	0	0 %	0	0 %	0	0 %	0
331/4	Conc Bridge Railing	(LF)	2,388	100 %	2,380	0 %	8	0 %	0	0 %	0	0 %	0
341/4	Substr Conc Coating	(EA)	1	100 %	1	0 %	0	0 %	0	0 %	0	0 %	0
359/4	Soffit Smart Flag	(EA)	1	0 %	0	100 %	1	0 %	0	0 %	0	0 %	0
530/4	Approach Guardrail A	(EA)	1	100 %	1	0 %	0	0 %	0	0 %	0	0 %	0

Elem/Env	Description	Element Notes
26/4	Conc Deck/Coatd Bars	2 to 3 inches of asphalt. Looking worn in wheel lines.
102/4	Paint Stl Box Girder	Cracked weld at top connection of Diaphragm #8 to right web of Girder 3A. Previous report states: Splice plate at Girder B in Span 7 (first splice back from Pier 8) is bulged out on exterior of bottom flange (See 4/4/1990 PHOTO). It actually looks like bottom flange is bowed and splice plate took shape of bowed bottom flange. Angle between Girder B and exterior diaphragm is missing 2 bolts at Pier 2. Some timber formwork has been left in both girders near access holes above Pier 7 and Pier 11.
205/4	R/Conc Column	Few minor shrinkage cracks.
210/4	R/Conc Pier Wall	Considered at Pier 7 and Pier 11. Look OK.
215/4	R/Conc Abutment	Only one abutment. Looks OK.
233/4	P/S Conc Cap	Post-tensioned caps at P2, P3, P4, P5, P6, P8, P9, and P10. Hairline to light vert. and random cracks in some.
234/4	R/Conc Cap	At Pier 7 and Pier 11 only. Look good.
307/4	Modular Expansion Jt	At Abutment 1, Pier 7, and Pier 11. All are full of sand. R1 corrosion on the steel portions. Some light longit. cracks in concrete end dams. Looks and sounds solid. Joint at A1 open 9 inches, P7 open 8.75 inches, and P11 open 9.5 inches.
314/4	Pot Bearing	Minor cracks in the grout pads.
321/4	R/Conc Approach Slab	At Abutment 1. Covered with asphalt. Same grade as bridge deck at this time. End of approach slab where roadway meets, roadway is low. Needs leveling asphalt.

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Elem/Env	Description	Element Notes
326/4	Bridge Wingwalls	U-Type abutment wings. Minor random cracks. Filler material is coming out of both.
331/4	Conc Bridge Railing	Concrete Type R rail with 36 inch high chain link fence on top of portions above roads below. Light vert. cracks throughout. Minor traffic scuff marks. Few minor spalls and delam. from traffic impact.
341/4	Substr Conc Coating	On abutments and wings. Spots of graffiti and blotted out graffiti.
359/4	Soffit Smart Flag	Galvanized stay in place forms on deck bottom between girders, and also inside boxes. Some light trans. cracks with efflor. in overhangs.
530/4	Approach Guardrail A	Concrete rails, and retaining walls, at #1 approach have settled; 15 inches at left, and 9 inches at right. Concrete rail is breaking up with exposed rebar. (See 2006 PHOTOS).

Maintenance Activity Summary

MMS Activity	Description	Recommended	Status	Target Year	Est Cost
354.04	Suprstr	4/19/2002	-1	2008	5000

Clean debris out of Girder 1A. It has trash and human waste inside at Abutment 1.

360.01	App SI & S	3/24/2008	_	2008	2000
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Needs leveling asphalt at Abutment 1 between end of approach slab and roadway.

398.00	Misc Br Wk	4/19/2002	-1	2008	10000
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Repair the concrete rail at Abutment #1 approach, where settlement has caused it to break.

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Bridge Notes

Box girders are accessible at Abutment #1 with an 8 ft. ladder. Large locks require #15 key which is located at left side of inspection folder. Access doors at Pier #11 are about 30 to 35 ft. above ground level.

Inspection Notes

Time: 10:05 Temperature: 55 Degrees Weather: Overcast Team leader: WDC

Scope:

☒ NBI: ☒ Element: ☐ Underwater: ☒ Fracture Critical: ☐ Other: Type: Regular NBI

Inspector: COFFRINW

Inspection Team:

Inspection Date: 03/24/2008

Inspector

Inspector